



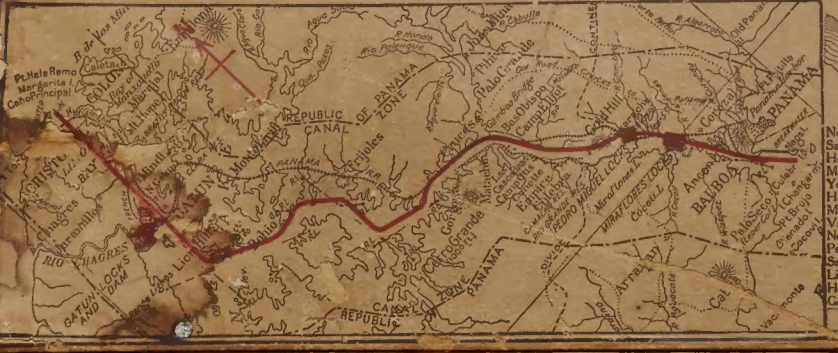
RESOURCE MAP
Area : Population : Agriculture : Mining : Manufacturing
LEWIS R. MYERS & COMPANY
EDUCATIONAL SPECIALTIES
VALPARAISO, IND.
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All information hereon was compiled from latest United States Government records and is therefore reliable.

EXPLANATION
Figures following name of state indicate rank of state in that product.
Texas=100
Figures in () indicate that Texas is first in the production of Cotton.
Figures in () indicate rank of state in value of Manufactured Products.
Figures in () indicate rank of state in value of Agricultural Products.
Figures in () indicate rank of state in value of all Mineral Products.
Figures in () indicate rank of state in Population.

GROUPS
1. Dairy and General Farming.
2. Corn and Winter Wheat.
3. Spring Wheat.
4. Cotton.
5. Live Stock and Wool.
6. Grain and Fruit.
7. General Crop.
8. Sugar.
9. Tobacco.
10. Petroleum.
11. Iron.
12. Coal.
13. Gold.
14. Silver.
15. Copper.
16. Lead.
17. Zinc.
18. Nickel.
19. Tin.
20. Manganese.
21. Potash.
22. Soda.
23. Lumber.
24. Paper.
25. Glass.
26. Brick.
27. Cement.
28. Steel.
29. Iron.
30. Coal.
31. Gold.
32. Silver.
33. Copper.
34. Lead.
35. Zinc.
36. Nickel.
37. Tin.
38. Manganese.
39. Potash.
40. Soda.
41. Lumber.
42. Paper.
43. Glass.
44. Brick.
45. Cement.
46. Steel.
47. Iron.
48. Coal.
49. Gold.
50. Silver.
51. Copper.
52. Lead.
53. Zinc.
54. Nickel.
55. Tin.
56. Manganese.
57. Potash.
58. Soda.
59. Lumber.
60. Paper.
61. Glass.
62. Brick.
63. Cement.
64. Steel.
65. Iron.
66. Coal.
67. Gold.
68. Silver.
69. Copper.
70. Lead.
71. Zinc.
72. Nickel.
73. Tin.
74. Manganese.
75. Potash.
76. Soda.
77. Lumber.
78. Paper.
79. Glass.
80. Brick.
81. Cement.
82. Steel.
83. Iron.
84. Coal.
85. Gold.
86. Silver.
87. Copper.
88. Lead.
89. Zinc.
90. Nickel.
91. Tin.
92. Manganese.
93. Potash.
94. Soda.
95. Lumber.
96. Paper.
97. Glass.
98. Brick.
99. Cement.
100. Steel.

SCALE OF MILES
0 100 200 300 400 500 600 700 800 900 1000



WHAT IT MEANS IN MILES

From	To	Miles
New York	San Francisco	2,790
New York	Honolulu	2,540
New York	Manila	13,800
New York	Yokohama	11,500
New York	Hong Kong	11,340
New York	Melbourne	9,971
New York	Valparaiso	4,637
San Francisco	Panama	2,023
San Francisco	Colon	3,277
San Francisco	London	7,857
San Francisco	Hamburg	7,932
San Francisco	Genoa	8,511



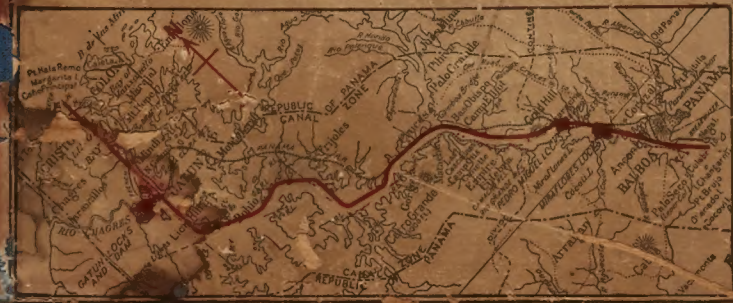
RESOURCE MAP
Area : Population : Agriculture : Mining : Manufacturing
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EXPLANATION
Figures following name of product indicate rank of State in that product.
Texas-COTTON : indicates that Texas is first in the production of Cotton.
Figures in () indicate rank of State in value of Manufactured Products. Above rank of State in value of Manufactured Products when multiplied by 2 shows rank of State in value of Agricultural Products.
Figures in () show rank of State in value of all Mineral Products.
Figures in () show rank of State in Population.

GROUPS
1. Dairy and General Farming. 4. Cotton.
2. Cereals and Winter Wheat. 5. Live Stock and Wool.
3. Spring Wheat. 6. Grains and Fruits.
7. General Crop.

SCALE OF MILES
0 100 200 300 400 500 600 700 800 900 1000



WHAT IT MEANS IN MILES

Distance via Panama	Distance via Cape Horn	Distance via Suez
New York to San Francisco 4,600	14,840	9,540
Hankow to San Francisco 11,380	14,230	7,485
Manila to San Francisco 11,380	17,452	5,872
Yokohama to San Francisco 9,744	17,679	7,935
Hong Kong to San Francisco 11,346	16,189	6,643
Shanghai to San Francisco 9,971	15,502	5,531
London to San Francisco 4,687	9,750	5,113

New York to Panama 2,023 miles. San Francisco to Panama 3,277 miles.

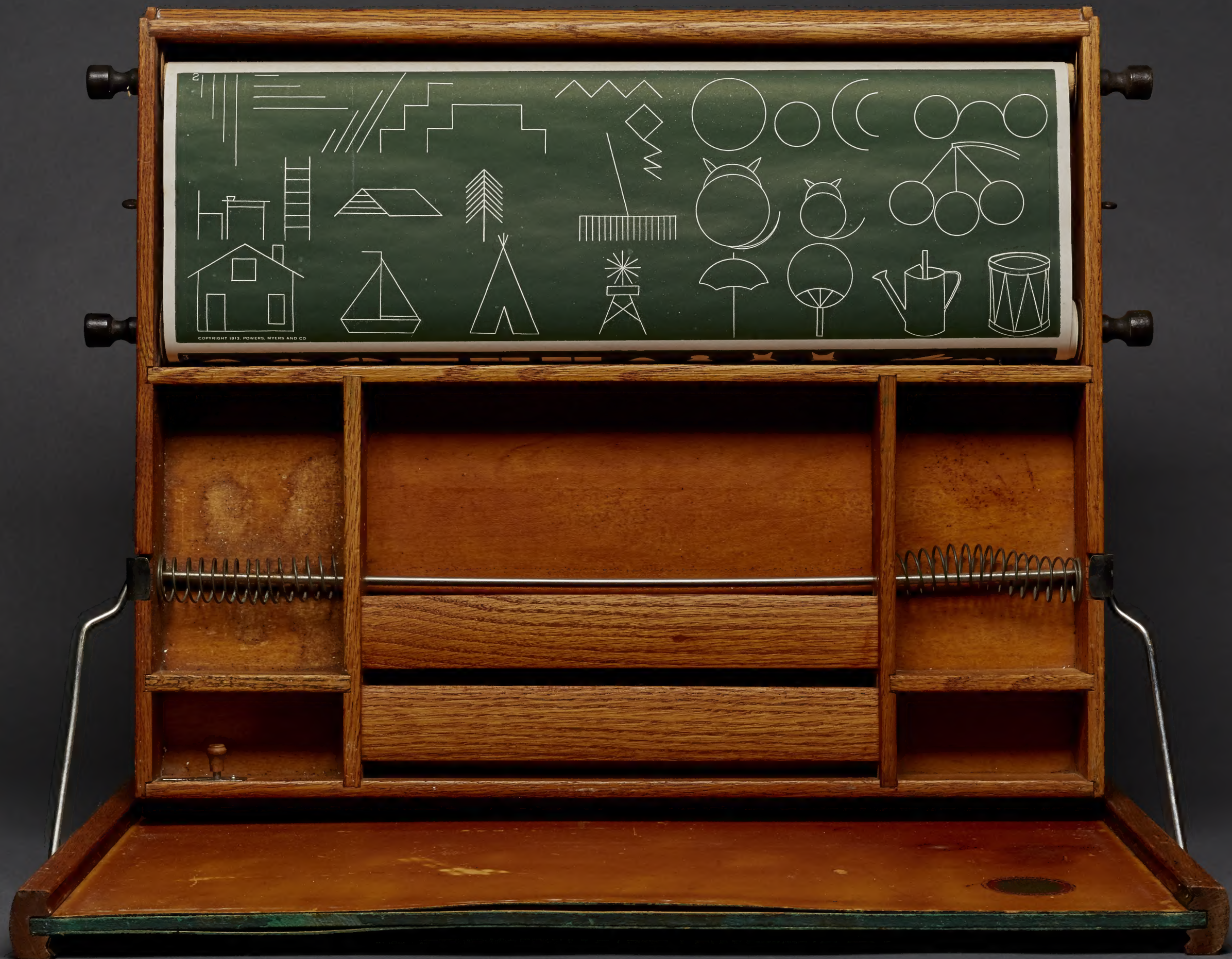
The Chautauqua Industrial Art Desk

A plan to promote the culture of work and play
among children in the home.

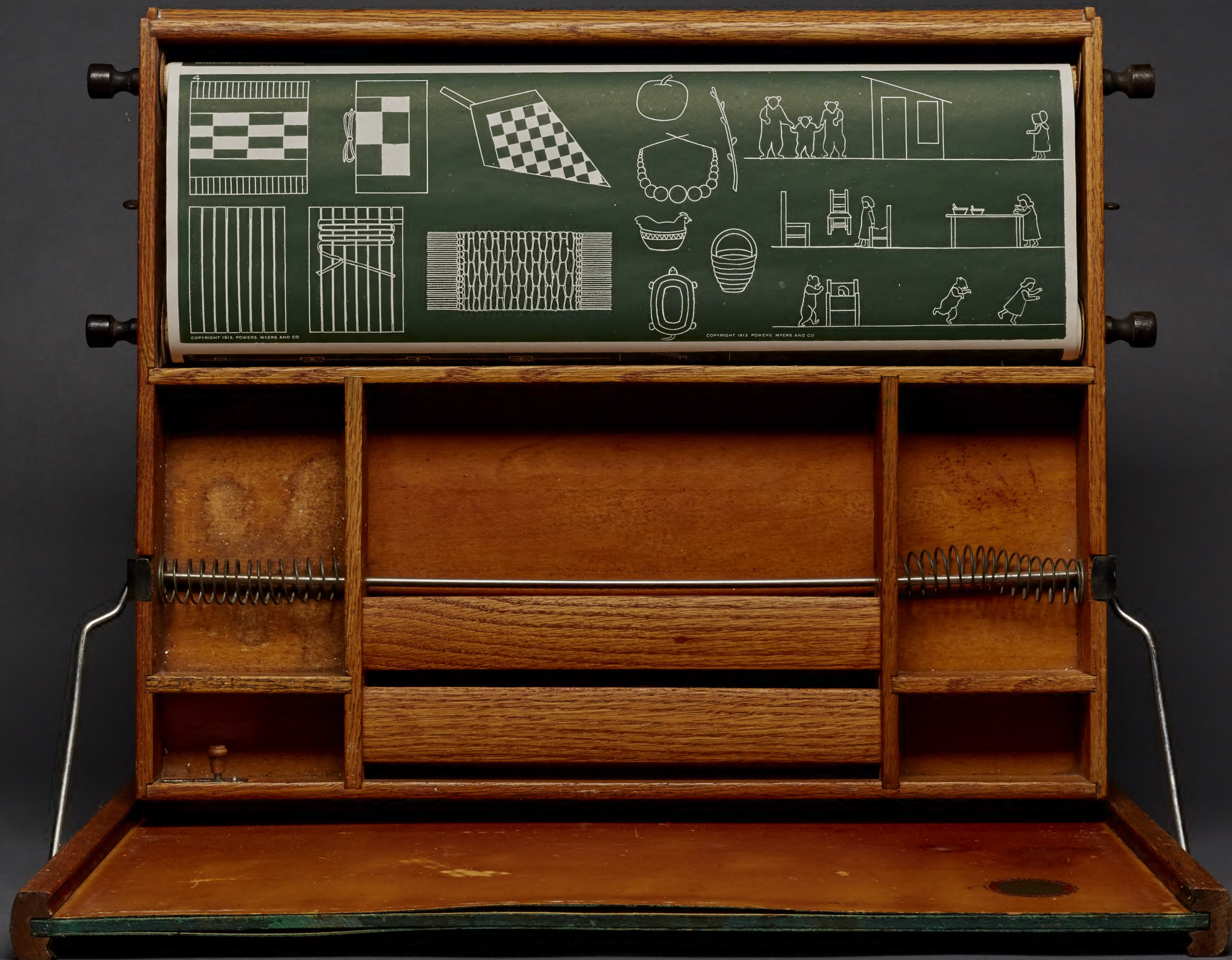


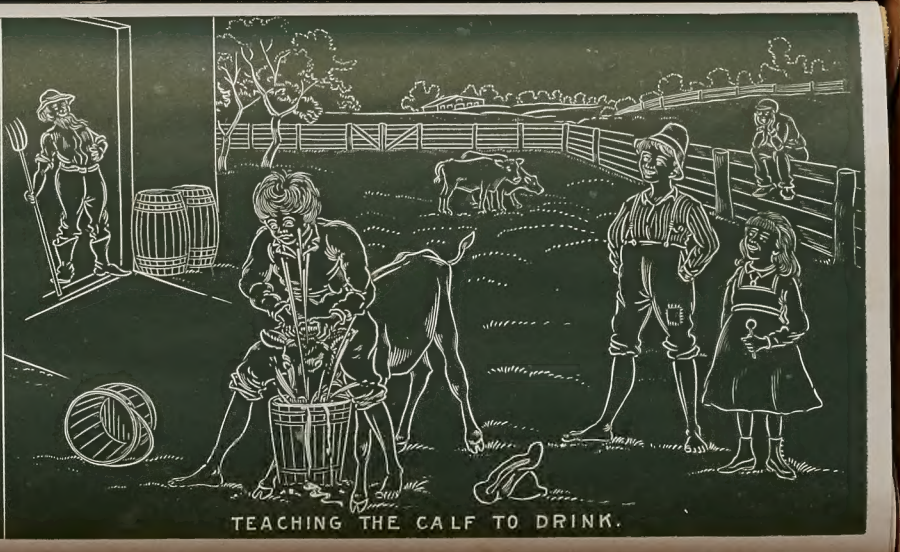
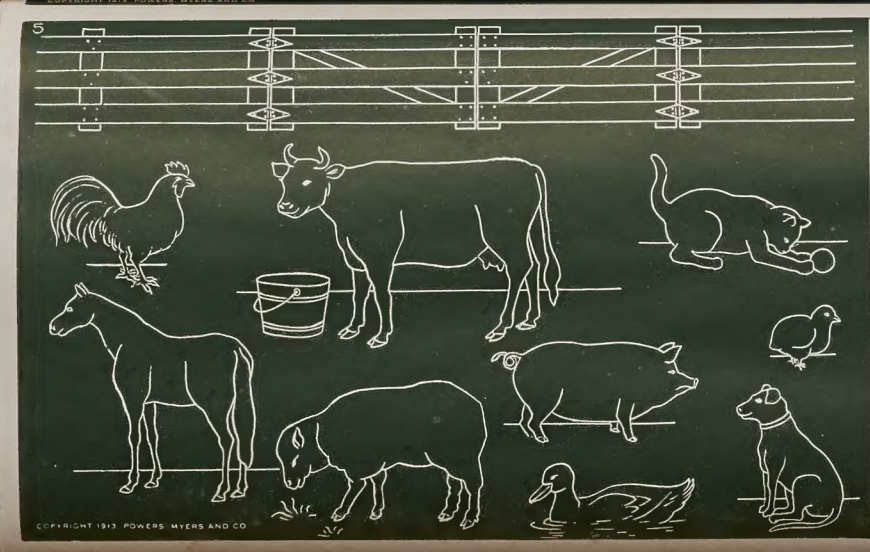
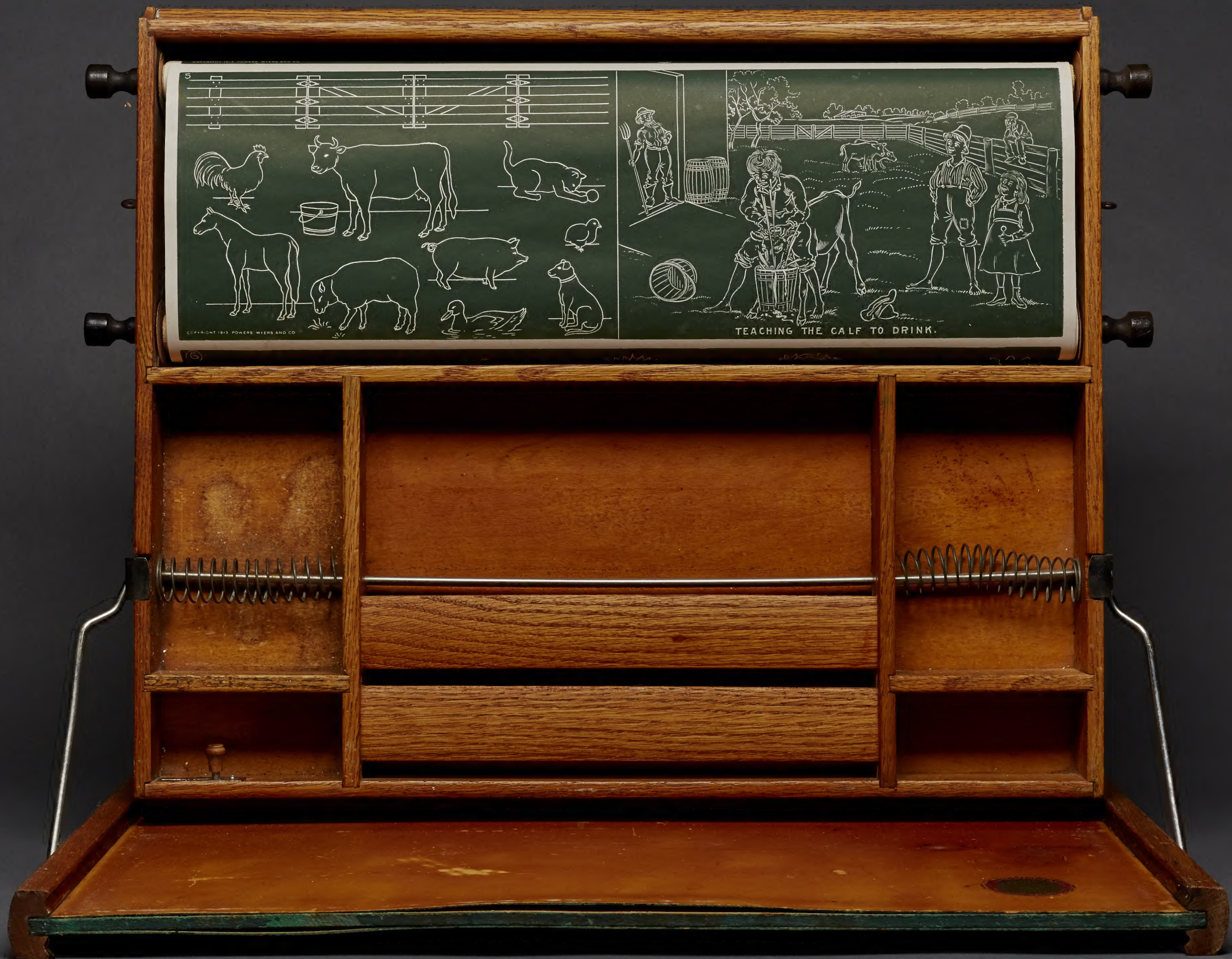
Lewis E. Myers & Company
Producers and Exclusive Distributors
Valparaiso, Ind. USA Woodstock, Ont. Canada

PAT. DES. 22,763
NOV. 17, 1903.
Copyright 1913 Lewis E. Myers & Co.
Valparaiso, Ind. U.S.A.
Woodstock, Ont. Canada



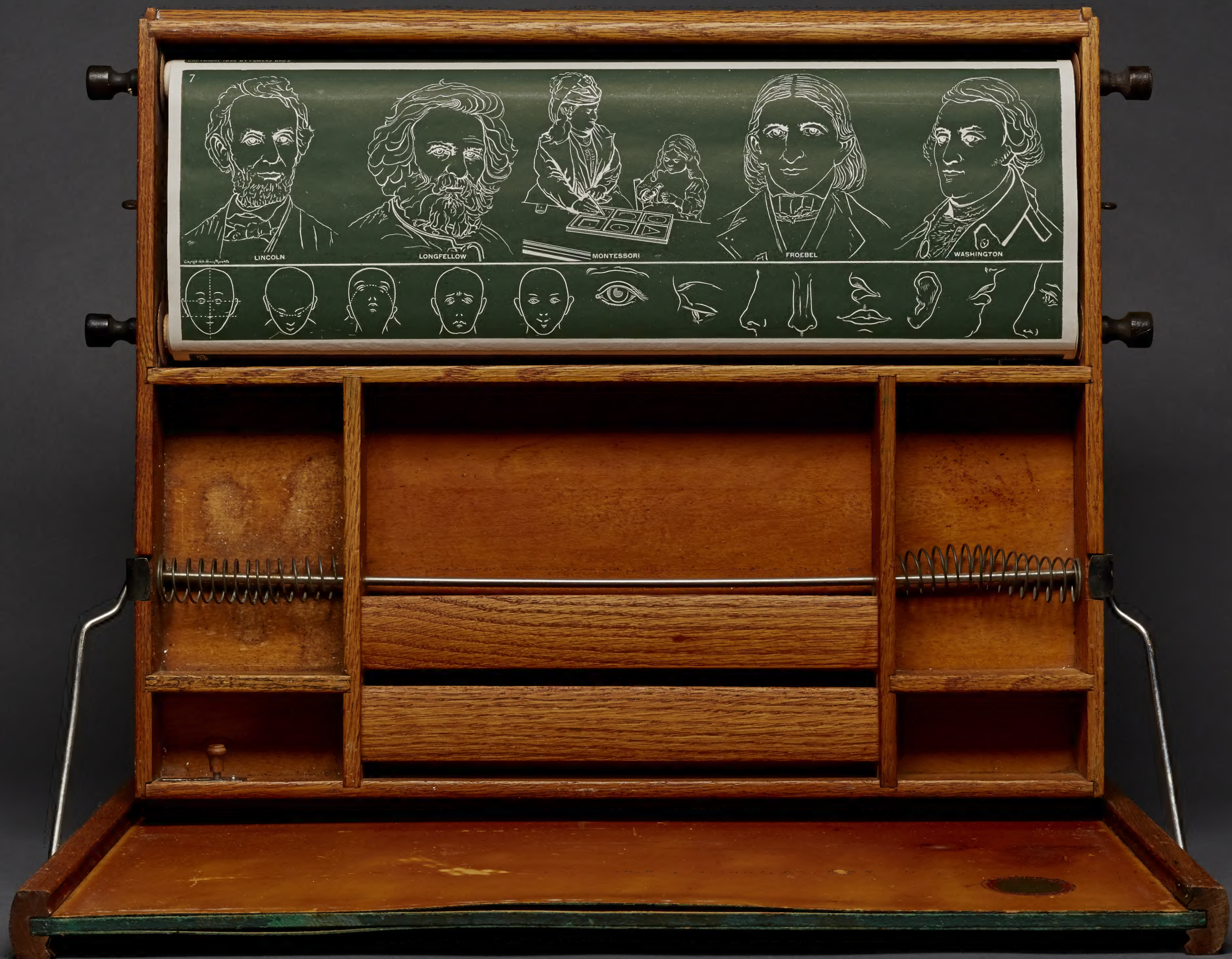




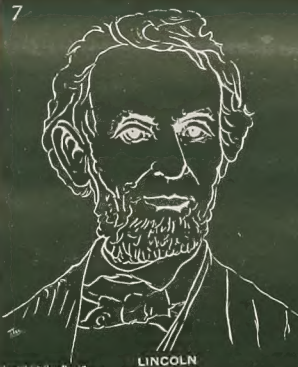


TEACHING THE CALF TO DRINK.

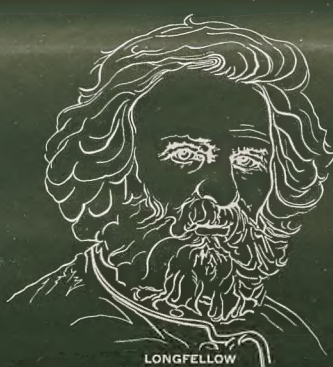




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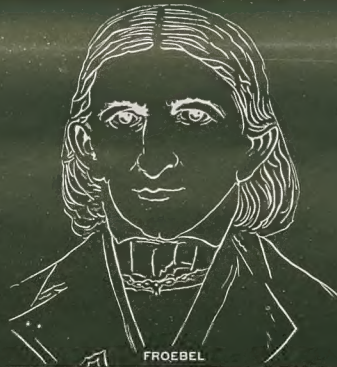
LINCOLN



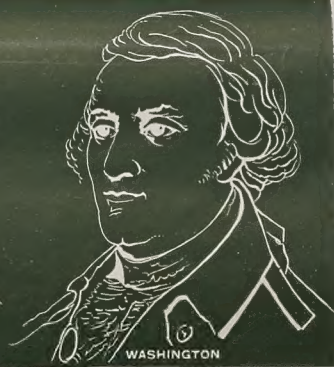
LONGFELLOW



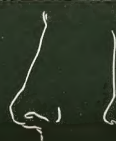
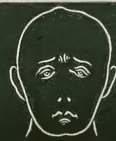
MONTESORI



FROEBEL



WASHINGTON







⁹ THE PALMER METHOD OF BUSINESS WRITING BY *W. Palmer*

A B C D E F G H I J K L M

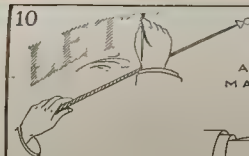
N O P Q R S T U V W X Y Z

a b c d e f g h i j k l m n o p

q r s t u v w x y z 1 2 3 4 5 6 7 8 9 0



10



POSITION
OF BRUSH
AND HAND IN
MAKING LETTERS.

INDEX HAND
HOW TO LAY OUT



COPYRIGHT 1903 BY POWERS HIGLEY & CO

A B C D
FULL BLOCK

U V W X
ANTIQUE EGYPTIAN

*Mechanical.
Bridge Engine.
DRAFTSMENS CAPS ETC*

E F G H
HALF BLOCK

Y Z & R
ANTIQUE EGYPTIAN LIGHT

Ra Dx
ITALIC SCRIPT

I J K L
ANTIQUE HALF BLOCK

B W E J
BOSTON ROMAN

T J Z G
16TH CENTURY

M N O P
RAIL ROAD BLOCK

U O M F
FRENCH ROMAN

G S Q Z
OLD ENGLISH

Q R S T
EGYPTIAN

N P C Y
FRENCH ROMAN HEAVY

This When
ENGROSSING

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

a b c d e f g h i j k l m n o p q r s t u v w x y z & 1 2 3 4 5 6 7 8 9 0.

I V X L C D M
1 5 10 50 100 500 1000

11

ARRANGED BY PRES. G. M. DODGE OF DODGE'S

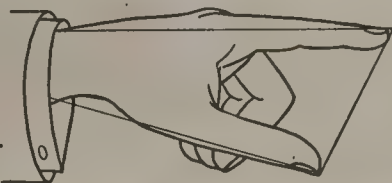
TELEGRAPHIC CODES

INSTITUTE OF TELEGRAPHY, VALPARAISO INDIANA



POSITION
OF BRUSH
AND HAND IN
MAKING LETTERS.

INDEX HAND
HOW TO LAY OUT



COPYRIGHT 1903 BY POWERS HIGLEY & CO

A B C D

FULL BLOCK

E F G H

HALF BLOCK

I J K L

ANTIQUE HALF BLOCK

M N O P

RAIL ROAD BLOCK

Q R S T

EGYPTIAN

U V W X

ANTIQUE EGYPTIAN

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ANTIQUE EGYPTIAN LIGHT

B W E J

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FRENCH ROMAN

N P C Y

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*Mechanical.
Bridge Engine.*

DRAFTSMENS CAPS ETC

Ra Dx

ITALIC SCRIPT

T J Z G

16 TH CENTURY

G S Q B

OLD ENGLISH

This When

ENGROSSING

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

a b c d e f g h i j k l m n o p q r s t u v w x y z . &

1 2 3 4 5 6 7 8 9 0

I V X L C D M

1 5 10 50 100 500 1000

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ARRANGED BY PRES. G. M. DODGE OF DODGE'S TELEGRAPHIC CODES INSTITUTE OF TELEGRAPHY, VALPARAISO INDIANA
MORSE CODE--WIRE AND WIRELESS CONTINENTAL CODE--WIRE AND WIRELESS

A	B	C	D	E	F	G	H	I	a	b	c	d	e	f	g	h	i
J	K	L	M	N	O	P	Q	R	j	k	l	m	n	o	p	q	r
S	T	U	V	W	X	Y	Z	&	s	t	u	v	w	x	y	z	
1	2	3	4	5	6	7	8	9	Wait	Under-stand	Don't Under-stand	Period	Interro-gation	Exclama-tion	1	2	3
		0	Period	Interro-gation ?	Comma				4	5	6	7	8	9	0	Call	Finish



12

USED BY 80 PER CENT OF COURT REPORTERS

SHORTHAND
GRAHAM SYSTEM

TAUGHT BY BRYANT & STRATTON BUSINESS COLLEGE, CHICAGO

CONSONANTS

P AS IN PIE	S AS IN SEE
B AS IN BEE	Z AS IN ZEAL
T AS IN TWO	SH AS IN SHALL
D AS IN DAY	ZH AS IN TREASURE
CH AS IN CHIN	L AS IN LET
J AS IN JOY	R AS IN AIR
K AS IN KITE	R AS IN ROW
G AS IN GET	M AS IN ME
F AS IN FUR	N AS IN NEW
V AS IN VAIN	NG AS IN SING
TH AS IN THICK	W AS IN WOE
TH AS IN THOSE	Y AS IN YET
H AS IN HEN	

1 ST	POSITION
2 ND	"
3 RD	"

1 ST	POSITION
2 ND	"
3 RD	"

CIRCLE FOR S & Z

LONG VOWELS

E AS IN TEETH	A AS IN TALL
A AS IN TASTE	O AS IN TONE
A AS IN TAR	OO AS IN TOOL

SHORT VOWELS

I AS IN TIN	O AS IN TOP
E AS IN TELL	U AS IN TUB
A AS IN TACK	OO AS IN TOOK

DIPHTHONGS

I AS IN TIE	OW AS IN TOWN
OI AS IN TOY	EW AS IN S-TEW

POSITION OF CONSONANT OUTLINE FOLLOWS VOWEL POSITION AS: TEA DOUGH: AT

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13

TAUGHT BY BRYANT & STRATTON BUSINESS FORMS BUSINESS COLLEGE, CHICAGO

USED BY 80 PER CENT OF COURT REPORTERS

SHORTHAND
GRAHAM SYSTEM

TAUGHT BY BRYANT & STRATTON BUSINESS COLLEGE, CHICAGO

CONSONANTS

\ P AS IN PIE	) S AS IN SEE
\ B AS IN BEE	) Z AS IN ZEAL
T AS IN TWO	/ SH AS IN SHALL
D AS IN DAY	/ ZH AS IN TREASURE
/ CH AS IN CHIN	/ L AS IN LET
/ J AS IN JOY	\ R AS IN AIR
— K AS IN KITE	/ R AS IN ROW
— G AS IN GET	— M AS IN ME
\ F AS IN FUR	— N AS IN NEW
\ V AS IN VAIN	— NG AS IN SING
(TH AS IN THICK	\ W AS IN WOE
(TH AS IN THOSE	/ Y AS IN YET

/ H AS IN HEN

1ST POSITION2ND "3RD "1ST POSITION2ND "3RD "CIRCLE FOR S & Z 

LONG VOWELS

E AS IN TEETH	A AS IN TALL
A AS IN TASTE	O AS IN TONE
A AS IN TAR	OO AS IN TOOL

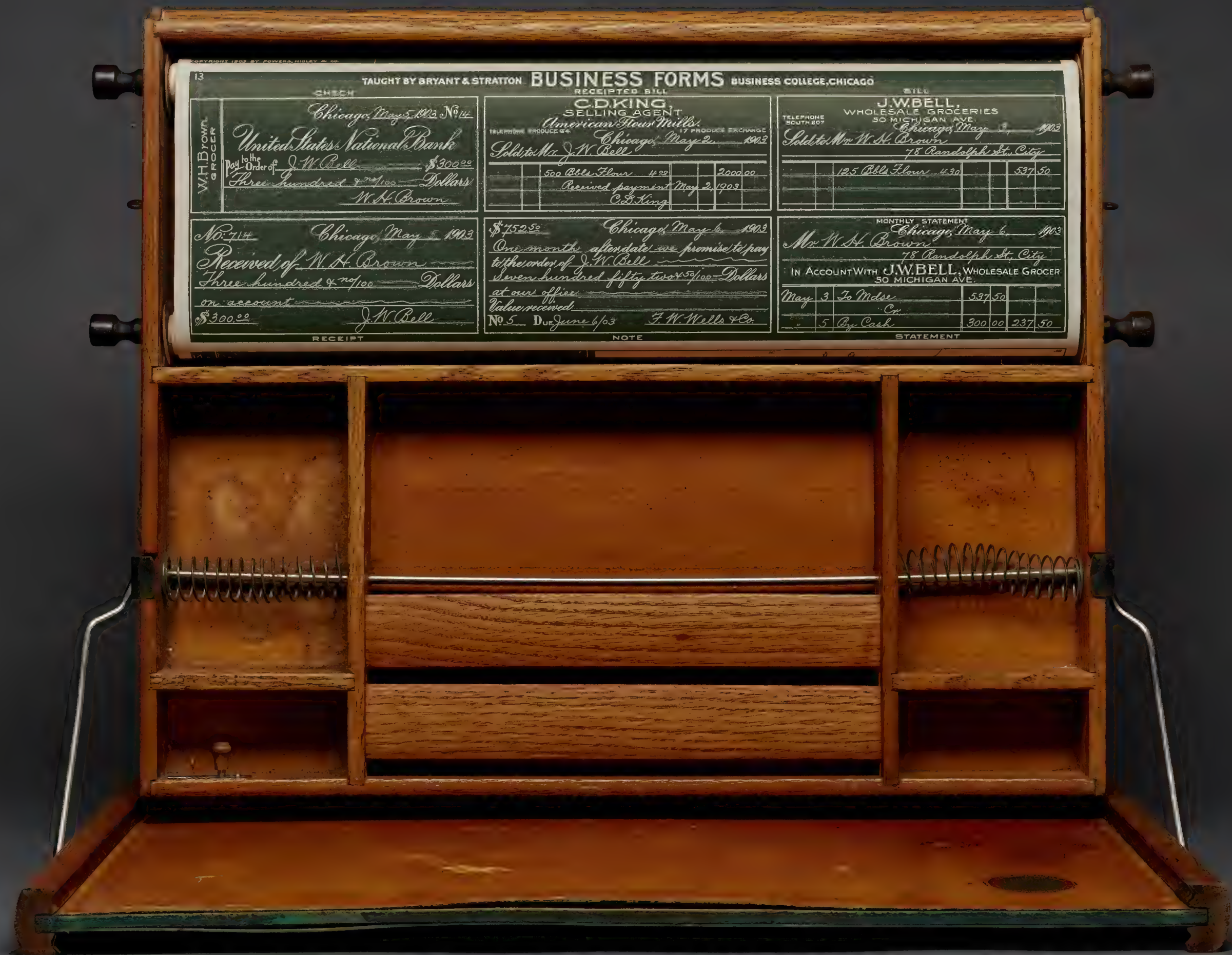
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I AS IN TIE	OW AS IN TOWN
OI AS IN TOY	EW AS IN S-TEW

POSITION OF CONSONANT OUTLINE FOLLOWS VOWEL POSITION AS: TEA DOUGH. I. AT



13

TAUGHT BY BRYANT & STRATTON BUSINESS FORMS BUSINESS COLLEGE, CHICAGO

CHECK

Chicago, May 5, 1903 No. 14

W.H. BROWN GROCER

United States National Bank

Pay to the Order of J.W. Bell \$300.22

Three hundred & no/100 Dollars

W.H. Brown

RECEIPTED BILL

C.D. KING SELLING AGENT

American Flour Mills

Chicago, May 2, 1903

Sold to Mr. J.W. Bell

500 Bbls. Flour	4.25	2000.00
Received payment May 2, 1903		
C.D. King		

BILL

J.W. BELL WHOLESALE GROCERIES

50 MICHIGAN AVE. Chicago, May 1, 1903

Sold to Mr. W.H. Brown

78 Randolph St., City

125 Bbls. Flour	4.30	537.50
-----------------	------	--------

No. 714 Chicago, May 5, 1903

Received of W.H. Brown

Three hundred & no/100 Dollars

on account

\$300.22 J.W. Bell

\$752.50 Chicago, May 6, 1903

One month after date we promise to pay

to the order of J.W. Bell

Seven hundred fifty two & 5/100 Dollars

at our office

Value received

No. 5 Due June 6/03 F.W. Wells & Co.

MONTHLY STATEMENT

Chicago, May 6, 1903

Mr. W.H. Brown

78 Randolph St., City

IN ACCOUNT WITH J.W. BELL, WHOLESALE GROCER

50 MICHIGAN AVE.

May 3 To Mdse.	537.50	
Cr		
5 By Cash	300.00	237.50

RECEIPT

NOTE

STATEMENT

TAUGHT BY BRYANT & STRATTON

BUSINESS FORMS

BUSINESS COLLEGE, CHICAGO

CHECK

WH. BROWN,
GROCER

Chicago, May 5, 1903 No. 14

United States National Bank

Pay to the Order of J. W. Bell \$300.00

Three hundred & no/100 Dollars

W. H. Brown

RECEIPTED BILL

C. D. KING,
SELLING AGENT

American Flour Mills.

TELEPHONE PRODUCE 64 17 PRODUCE EXCHANGE

Chicago, May 2, 1903

Sold to Mr. J. W. Bell

	500 Bbls Flour	4.00		2000.00
	Received payment May 2, 1903			
	C. D. King			

BILL

J. W. BELL,
WHOLESALE GROCERIES

50 MICHIGAN AVE.

Chicago, May 3, 1903

Sold to Mr. W. H. Brown

78 Randolph St., City

	125 Bbls Flour	4.30		537.50

No. 714 Chicago, May 5, 1903

Received of W. H. Brown

Three hundred & no/100 Dollars

on account

\$300.00 J. W. Bell

RECEIPT

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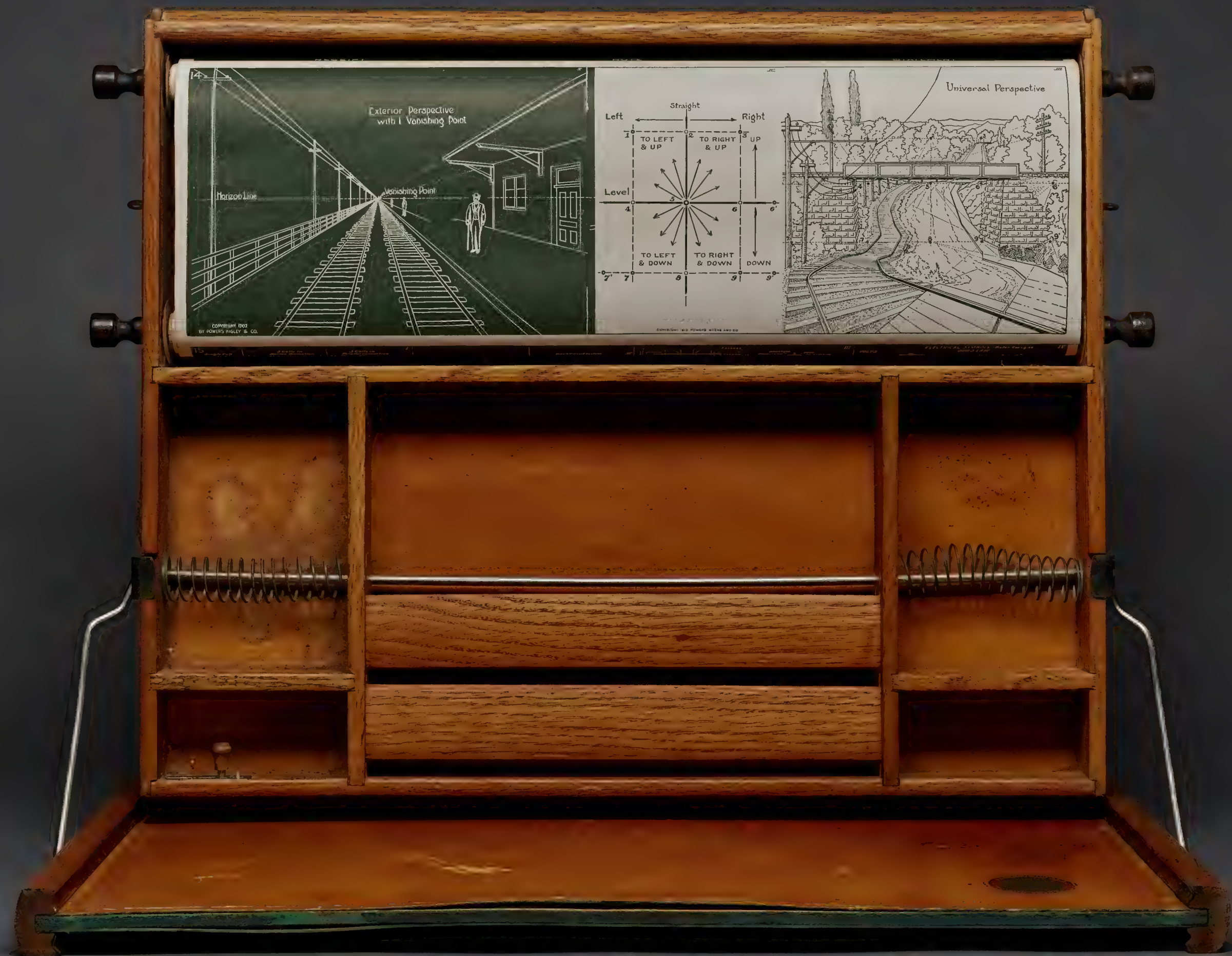
78 Randolph St., City

IN ACCOUNT WITH J. W. BELL, WHOLESALE GROCER

50 MICHIGAN AVE.

May	3	To Mdse		537.50		
		Cr				
	5	By Cash		300.00	237.50	

STATEMENT



15 Single Cell
1.5 Volts
3 Amperes = 7.5 Watts

3 Cells in Series Connection
4.5 Volts and 5 Amperes
= 22.5 Watts

3 Cells in Parallel Connection
1.5 Volts and 15 Amperes
= 22.5 Watts

3 Cells
15 Volts
4.5 Amperes
= 67.5 Watts

10 Cells
10 Volts
7.5 Amperes
= 75 Watts

Magnetic field around wire

Polarity

Effect of Field Magnet on unpaired Armature

Starts Stops

Shunt like Armature

Commutator

Continuous Rotation

Electric Bells

Open Circuit Symbols

Telephone

Morse Telegraphy (Closed Circuit System)

Key Relay Sounder

Wireless Telegraphy

50 Mile Range

Hydro-Electric Station

1000 Volt Line

Domestic Service

ELECTRICAL SYMBOLS - Water Analogy
OHMS LAW

$E = I \times R$ For $E = 10$
 $E = \text{Amperes} \times \text{Ohms} = IR = 5 \times 2 = 10$
 $E = \text{Volts} \div \text{Amperes} = V/I = 10 \div 2 = 5$

$I = E \div R$
 $I = \text{Volts} \div \text{Ohms} = E/R = 10 \div 2 = 5$
 $I = \text{Watts} \div \text{Volts} = W/V = 10 \div 2 = 5$

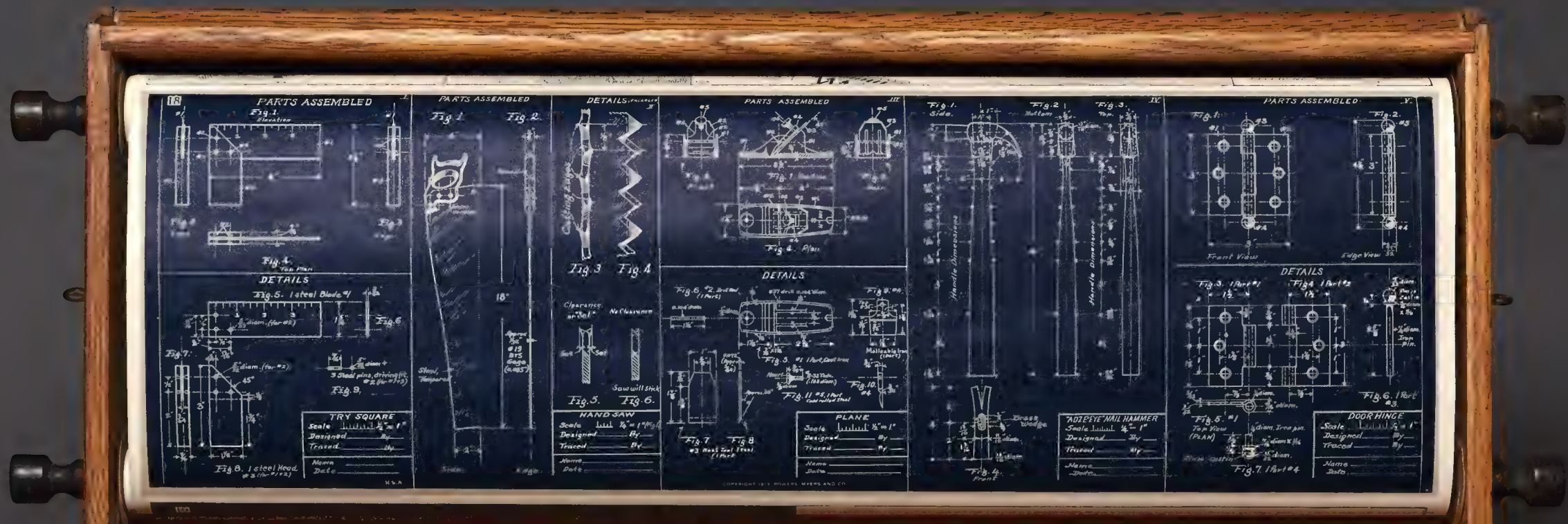
$R = E \div I$
 $R = \text{Volts} \div \text{Amperes} = E/I = 10 \div 2 = 5$
 $R = \text{Volts} \div \text{Watts} = E/W = 10 \div 2 = 5$

Unit of POWER in Circuit
Watts = Volts x Amperes = $E \times I = 10 \times 2 = 20$
Pounds of Water falling in 1 Second = 550 = H.P.
1000 Watts for 1 Hour = 1 K.W.H.











Magazine, Book and
Newspaper
Illustrating



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Pencil Drawing



Pencil Drawing









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1

1

See Home Teacher, pages 83-87, 96-97, 100; Child Life, pages 3-46.

2

2

COLOR DEVELOPMENT

3

3

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CAN'T YOU TALK?—Holmes

See Home Teacher, page 106.



MADONNA OF THE CHAIR—Raphael



PRISCILLA SPINNING—Barre

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